

Aldhurst Farm Habitat Creation Scheme
Leiston, Suffolk
 EDF Energy and CA Blackwell

BIG Biodiversity Challenge Award category: Large Scale Permanent

Project overview

The Aldhurst Farm site covers approximately 67 hectares on the edge of Suffolk Coast and Heaths Area of Outstanding Natural Beauty and Sizewell Marshes Site of Special Scientific Interest (SSSI). The project involved dewatering, excavation and shaping four large basins to create conditions suitable to sustain wetland habitat including reedbed and lowland ditches. The excavated soil, which included peat, was spread across the surrounding fields to reduce the pH and fertility of the arable soils and help create conditions suitable for the establishment of heathland mosaic.

Many of the proposed new habitats created, benefit a variety of wildlife including vascular plants, invertebrates, water voles, otters, eels, amphibians, reptiles, and breeding and wintering birds. Management over the coming years will seek to increase biodiversity and open up the remaining area for amenity use for residents of the adjacent town of Leiston.

What were the biodiversity conditions on site, prior to the enhancement?

Habitats on site were predominantly arable with small areas of grassland, scrub, woodland and hedgerows. The area contains two connecting streams running through, and draining into, Sizewell Marshes. These habitats were of low biodiversity value, limited in extent and comprising common species which are widespread in the area.

Were there any specific conditions that led to you carrying out this work?

The wetland habitat was proposed to help compensate for any future potential land-take from the Sizewell Marshes SSSI should the Sizewell C nuclear power station be granted consent and built.



Site plan

The creation of this new wetland habitat, together with the wider heathland habitat, has been progressed independently of the Sizewell C application and will be proactively managed to ensure the site matures over the coming years.

What were the biodiversity measures taken?

Approximately 5 hectares of wet reed habitat, incorporating between 20-30% open water habitat and approximately 5-15% of later succession habitats that support a characteristic assemblage of reedbed plant and animal species has been created and will be managed to increase biodiversity; in particular, species currently found within the neighbouring SSSI. The majority of these habitats are identified as priority Suffolk Biodiversity Action Plan habitats and the scale of the project means there will be a net gain in biodiversity in the area, even as mitigation for Sizewell C, should this proceed.

In developing the proposals, a primary aim of the project was to reuse all excavated soil on site to reduce the amount of waste created and requiring transport off site. This not only enabled the soils to be mixed with those on the land around the basins to create a pH level suitable for grasses, including native red and creeping red fescue, it also reduced transport movements from site and associated nuisance. The habitat scheme landscape will reflect the distinctive land-use and vegetation typologies of the adjacent Estate Sandlands and Coastal Levels character types.

The local community and interested parties such as Suffolk Wildlife Trust, have been engaged throughout the project. Primarily via the planning consultation and later via regular newsletters. A site visit was arranged, towards the end of the project, for local school pupils who learned about the project and were actively engaged in reed planting. A newsletter article on this visit is provided on the following webpage. <http://sizewell.edfenergyconsultation.info/news/suffolk-students-help-create-new-wetland-habitat/>



Basin A 2016 with reeds planted

This scheme is replicable, however the area chosen was particularly successful in terms of its existing characteristics. This included the watercourses, position next to the SSSI and peaty soil in the excavations which was used on the surrounding land.

How would you best describe the project?

Mitigation and enhancement

Further information

As the basins are constructed below the water table, dewatering was required to facilitate dry working. Lowering groundwater levels involved installation of a well point dewatering system. Bulk excavation was undertaken initially, followed by a second stage of excavation to refine the basins in accordance with the design. Excavated soils were removed from the excavation and transferred to the soils distribution areas. GPS guided machinery was used for the final profiles of the excavations and soil spreading. Water control structures, designed with tilting weirs and eel passes, were installed between each basin and the adjacent watercourses. The weirs will maintain water in the basins at typical groundwater levels. The soil distribution areas were planted with seed mixes and these areas will be subject to a landscape and amenity plan to enable the residents of Leiston to access the site for recreational purposes.

Over the last year, immediate objectives of the scheme have been achieved and arrangements have been put in place for long term management of the site. Since the basins were created in summer 2015 there have been sightings of egret, oystercatcher, kingfisher, sparrow hawk, deer, fox and cubs, eel and fish (in the basins); encouraging in the first year.

One lesson we will take through to similar projects is identification and creation, during construction, of features which maximise biodiversity. In this case, basin edges were winding with shelves at differing depths to create a high level of heterogeneity and therefore number of habitats.



Drone Image Summer 2016

What was your personal motivation for carrying out the enhancement?

As an environmental specialist, it is an achievement not only to continue to maintain legal compliance but to go a step further, within the bounds of a project, to benefit the local community and create an area as special as this one in the existing beautiful Suffolk landscape and habitats.